



**Committee on Monitoring Research  
Terms of Reference  
April 23, 2007**

**Background**

The charter for the NOAA Research Council stipulates that the Council has responsibilities for monitoring research within NOAA.

The Council is, therefore, developing an overall proposal for monitoring the progress of research within NOAA. The four key elements of the new monitoring strategy are:

- To link research milestones with activities in the Program Operating Plans of the goal and program teams, the Annual Operating Plans of the Line Offices and the performance objectives of the NOAA strategic plan;
- To regularly evaluate the quality, relevance, and value of NOAA's research, both internally in NOAA, and by external review teams;
- To use a NOAA-wide database to track research accomplishments, and the outcomes in society that result from them;
- To track the financial reporting of research activities across the Agency.

Because monitoring of research in NOAA is proposed to be systematic and ongoing, it is appropriate to establish a permanent Committee of the Research Council for that purpose. The NOAA Executive Panel endorsed such a Committee.

**Definitions**

Research and development are defined as:

- A. Research is systematic study directed toward fuller scientific knowledge or understanding of the subject studied. Research is classified as either basic or applied according to the objectives of the sponsoring agency.
  - In basic research the objective of the sponsoring agency is to gain fuller knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications toward processes or products in mind.

- In applied research the objective of the sponsoring agency is to gain knowledge or understanding necessary for determining the means by which a recognized and specific need may be met.
- B. Development is systematic use of the knowledge or understanding gained from research, directed toward the production of useful materials, devices, systems, or methods, including the design and development of prototypes and processes. It excludes quality control, routine product testing, and production.
- C. Demonstration activities that are part of research or development (i.e., that are intended to prove or to test whether a technology or method does, in fact, work) should be included. Demonstrations intended primarily to make information available about new technologies or methods should not be included.
- D. R&D plant (R&D facilities and fixed equipment, such as reactors, wind tunnels, and particle accelerators) includes acquisition of, construction of, major repairs to, or alterations in structures, works, equipment, facilities, or land for use in R&D activities at Federal or non-Federal installations. Excluded from the R&D plant category are expendable or movable equipment (e.g., spectrometers, microscopes) and office furniture and equipment. Also excluded are the costs of pre-design studies (e.g., those undertaken before commitment to a specific facility). These excluded costs should be reported under total conduct of research and development. Obligations for foreign R&D plant are limited to Federal funds for facilities located abroad and used in support of foreign research and development.

Research and development include all direct, incidental, or related costs resulting from, or necessary to, performance of research and development, and costs of R&D plant as defined below, regardless of whether the research and development are performed by a Federal agency (intramurally) or performed by private individuals and organizations under grant or contract (extramurally). Research and development exclude routine product testing, quality control, mapping and surveys, collection of general-purpose statistics, experimental production, and the training of scientific personnel.

## **Purpose**

The purpose of the Committee on Monitoring Research is to provide information and recommendations to the NOAA Research Council to accomplish its mission, especially with respect to:

- Ensuring NOAA's research investment follows best practices, and is applied consistently across NOAA, following criteria of the Office of Management and Budget, and consistent with formal guidance (e.g. Information Quality Act);
- Monitoring performance measures for research, in order to advance quality of the science and safeguard scientific integrity;

- Establishing criteria and developing processes for reviews of all research and development programs, using the NOAA Science Advisory Board and other appropriate mechanisms; and
- Overseeing a continual process of independent peer evaluation to determine the quality and relevance of science and technology programs, products, and staff; and to recommend where and how improvements should be made.

## **Roles and Responsibilities**

The Committee will:

- Create and maintain a plan for monitoring of research in NOAA within the guidelines of the Research Council, and
- Analyze NOAA's execution of the plan and recommend modifications for improved implementation of the plan to the NOAA Research Council.

Primary responsibilities of the Committee are:

1. To ensure research activities are well connected to NOAA plans. The Committee will review the linkages between research milestones in the 5-year Research Plan, on one hand, and NOAA's Strategic Plan and other plans of Goal and Program teams, and Line Offices;
2. To specify how units of NOAA will report their internal evaluations of research. The Committee will prepare guidelines for evaluations at several levels:
  - by Centers, Laboratories, and Offices
  - by Line Offices
  - by Goal teams
  - by the Research Council;
3. To propose a process for evaluation of NOAA research by external teams. The Plan will specify the *nature* and *purpose* of these evaluations, and their *frequency*;
4. To enhance the ability of NOAA databases to track accomplishment of research milestones previously identified in NOAA plans;
5. To enhance the capability to track the outcomes in society of NOAA research accomplishments. Expectations for societal outcomes in the Strategic and Research Plans should be linked to the research accomplishments that led to the outcomes. Outcomes should be linked to specific benefits to the Nation or society;

6. To oversee the creation of new database capabilities in NOAA to track funding of NOAA research, with reference to the research area, mission goal, and program, as well as to the unit where the research was conducted;
7. To coordinate with the CFO Council, the Office of Program Analysis and Evaluation, and the Office of Program Planning and Integration on the enhancements to NOAA databases needed for monitoring of research in items 4, 5, and 6 above;
8. Respond to the direction of the NOAA Research Council, the CFO Council, and the National Science Foundation to reflect and maintain the standard definitions of research and development funding to be used in reporting and monitoring research;
9. To report to the Research Council at least quarterly with recommendations for improving NOAA's research monitoring process. In addition, to report on the state of NOAA research with respect to funding levels and overall balance of research activities in pursuit of NOAA's strategic objectives;
10. To develop a plan for communicating the Committee's findings and recommendations to various units of NOAA;
11. To suggest requirements for any additional resources needed to accomplish the monitoring of research in NOAA.
12. To develop a set of performance measures based upon the previous 11 responsibilities and upon which the Committee will be evaluated by the Research Council.

## **Decision Making**

The Committee shall strive for consensus on every issue, but when consensus cannot be achieved, the Chair will cast the deciding vote.

The Committee may form working groups or subcommittees at the request of its Chair and with the approval of the Chair of the Research Council.

## **Members**

The committee will consist of a minimum of seven (7) voting members. Voting members will be federal employees of NOAA. Non-federal contract employees may serve as non-voting (auxiliary) members. Members do not need to be serving on the NOAA Research Council, but the Council will have (at least) one official representative on this Committee, who will serve as the Chair.

There shall be voting representation of the following Line Offices:

Oceanic and Atmospheric Research (OAR)  
NOAA Satellites and Information Service (NESDIS)

National Ocean Service (NOS)  
Program Planning and Integration (PPI)  
National Weather Service (NWS)  
NOAA Fisheries Service (NMFS).

There shall be voting representation of the following NOAA Goal teams:

Climate  
Weather and Water  
Ecosystems  
Commerce and Transportation  
Mission Support.

There shall be non-voting representation of the Chief Financial Officer (CFO) Council, the Transition Board, and the Office of Program Analysis and Evaluation.

Voting and non-voting Committee members may represent more than one Line Office or Goal team. Voting members representing both a Line and a Goal office will be allowed to cast a total of two votes on decisional issues before the Committee.

### **Term**

The committee will be standing; its term is not limited. The Research Council may terminate the committee at will.